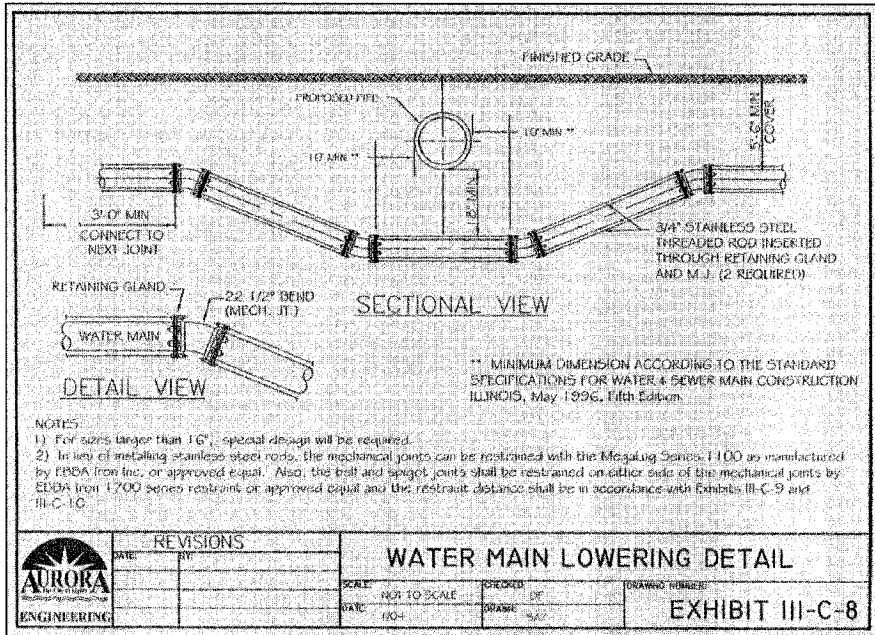
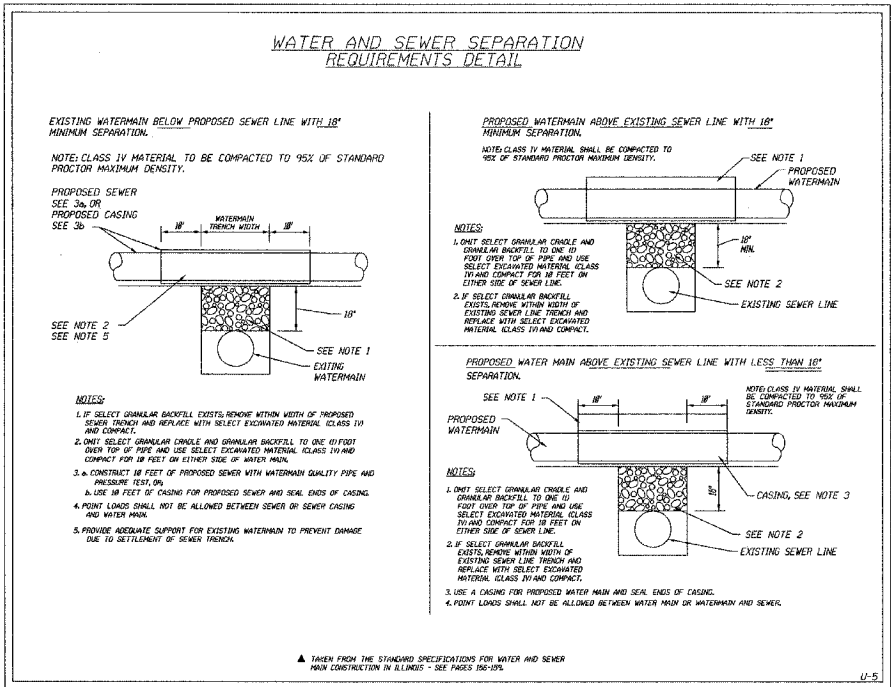


PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTED	
	REVIEWED	
	BY	
	DATE	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	NOTED	
	REVIEWED	
	BY	
	DATE	
	NO.	

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4/7/2007

FLAP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
365	01-00273-00-CH	KANE	172	134
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 83906	



MINIMUM RESTRAINT LENGTH (ft) ON BOTH SIDES OF THE FITTING

FITTING TYPE/NOMINAL SIZE	6"	8"	12"	16"
11 1/4" BEND	2	3	4	6
22 1/2" BEND	5	6	9	11
45" BEND	10	13	18	23
90" BEND	23	30	43	56
DEAD END	31	40	57	74
TOP SIDE OF A VERTICAL OFFSET	19	25	35	46
TEE RUN X BRANCH	6" BY 24	22	34	
TEE RUN X BRANCH	8" BY 22	31	51	
TEE RUN X BRANCH	12" BY 18	28	48	67
REDUCER	8" BY 17			
REDUCER	12" BY 42	30		
REDUCER	16" BY 62	54	31	

ALL JOINTS WITHIN THE LOWERED SECTION OF THE WATERMAIN SHALL BE RESTRAINED OR SHALL BE SOLID PIPE. THE ABOVE DISTANCES REFLECT THE REQUIRED RESTRAINT DISTANCE ON THE NORMALLY ELEVATED WATERMAIN EITHER SIDE OF THE 45° FITTING OF THE VERTICAL OFFSET (OR LOWERING).

MINIMUM OF 8 FT OF SOLID PIPE IS REQUIRED ON BOTH SIDES OF THE FITTING ON THE RUN SIDE. DISTANCE INDICATES THE LENGTH OF RESTRAINT ON THE BRANCH SIDE OR THE SIDE PERPENDICULAR TO THE TEE RUN WATERMAIN.

INDICATES THE DISTANCE FROM THE LARGER END OF THE REDUCER.

NOTES: 1) ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL.
2) THE ENTIRE RESTRAINT SYSTEM FROM THE FITTING TO THE MINIMUM RESTRAINT DISTANCE MUST BE INSPECTED BY THE CITY OF AURORA OR ITS REPRESENTATIVE PRIOR TO BACKFILLING.

WATERMAIN RESTRAINT LENGTH TABLE

REVISIONS

DATE

BY

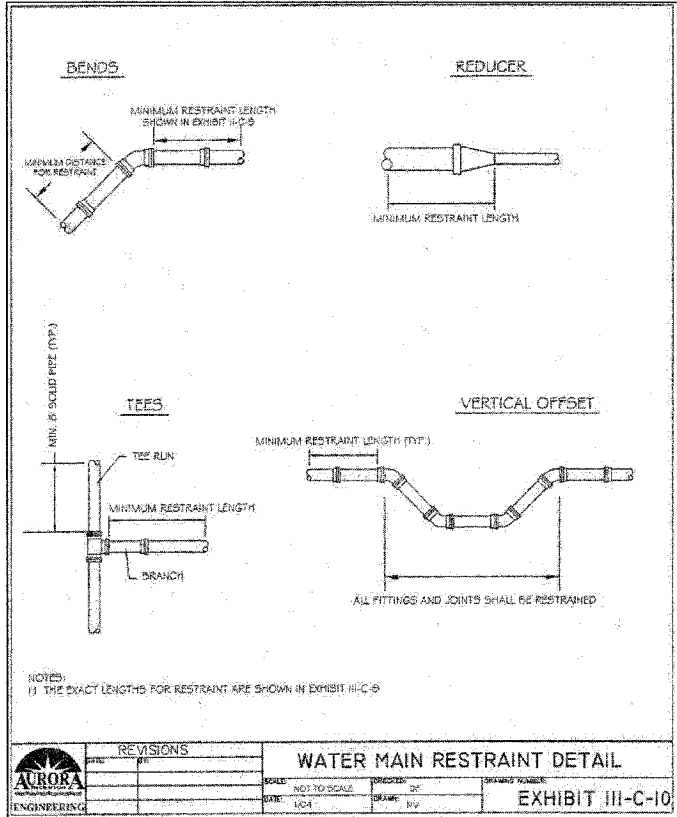
SCALE: NOT TO SCALE

CHECKED: P.J.H.

DATE: 2 / 04

DRAWING NUMBER: EXHIBIT III-C-9

ENGINEERING



ILLINOIS DEPARTMENT OF TRANSPORTATION
ILLINOIS ROUTE 56 AT KIRK / FARNSWORTH

MISCELLANEOUS DETAILS

SCALE: VERT. HORIZ. DATE: APR 06 2007

DRAWN BY: BAH
CHECKED BY: APS